

GAS TURBINE ENGINE COMBUSTOR CAN WITH TRAPPED VORTEX
CAVITY

ABSTRACT OF THE DISCLOSURE

5 A gas turbine engine combustor can downstream of
a pre-mixer has a pre-mixer flowpath therein and
circumferentially spaced apart swirling vanes
disposed across the pre-mixer flowpath. A primary
fuel injector is positioned for injecting fuel into
the pre-mixer flowpath. A combustion chamber
10 surrounded by an annular combustor liner disposed in
supply flow communication with the pre-mixer. An
annular trapped dual vortex cavity located at an
upstream end of the combustor liner is defined
between an annular aft wall, an annular forward wall,
15 and a circular radially outer wall formed
therebetween. A cavity opening at a radially inner
end of the cavity is spaced apart from the radially
outer wall. Air injection first holes are disposed
through the forward wall and air injection second
20 holes are disposed through the aft wall. Fuel
injection holes are disposed through at least one of
the forward and aft walls.